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|---------------------------------|------------|----------|----------|----------|----------|
| <b>II YEAR SEM-1 B.Tech CSE</b> | <b>LAB</b> | <b>L</b> | <b>T</b> | <b>P</b> | <b>C</b> |
| CODE:CS2703                     | DBMS LAB   | 0        | 0        | 2        | 2        |

| <b>Experiment #</b> | <b>Topic</b>                                                                                  | <b># of Hours( Lab Session #)</b> |
|---------------------|-----------------------------------------------------------------------------------------------|-----------------------------------|
| 1                   | Drawing ER diagrams: Design issues                                                            | 4 (Lab-1)                         |
| 2                   | To implement SQL DDL commands: Create, Alter, Drop, Truncate                                  | 4 (Lab-2)                         |
| 3                   | To implement constraints: Primary Key, Foreign Key, Unique Key, Null, Not Null                | 2 (Lab-3)                         |
| 4                   | To implement queries involving NULL operations                                                | 2 (Lab-3)                         |
| 5                   | To learn about indexes                                                                        | 1 (Lab-4)                         |
| 6                   | To implement DML command: SQL Select(Group by, Order by, Limit)                               | 3 (Lab-4)                         |
| 7                   | To implement DML command: SQL update, delete and insert                                       | 4 (Lab-5)                         |
| 8                   | To implement nested queries and join queries: Inner join, left join, right join and full join | 4 (Lab-6)                         |
| 9                   | To implement views                                                                            | 2 (Lab-7)                         |
| 10                  | Getting familiar with PL/SQL                                                                  | 2 (Lab-7)                         |
| 11                  | Write programs using PL/SQL block and PL/SQL procedure ( 4 programs)                          | 4 (Lab-8)                         |
| 12                  | Getting familiar with PL/SQL cursor (3 programs)                                              | 2 (Lab-9)                         |
| 13                  | Writing PL/SQL functions (2 programs)                                                         | 2 (Lab-9)                         |
| 14                  | Getting familiar with triggers and implementing triggers (3 programs)                         | 4 (Lab-10)                        |

**Tools required:**

1. MySQL
2. Oracle 11g

**Reference Books**

1. RamezElmasri, Shamkant B. Navathe ,Fundamentals of Database (7th Edition), Paperback, 2007
2. Theorey T J, Database Modeling & Design, 2/e, Morgan Kaufmann Publishers, 1994.
3. H. GarciaMolina, J. D. Ullman and J. Widom, Database Systems The Complete Book, 1/e, Pearson Education, 2007